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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/057,135
Filing Date: October 29, 2001
Appellant(s): MAZZITELLI, JOHN JOSEPH

MAILED

DEC 17 2007

Technology Center 2100

Hope Shimabuku
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 18 October 2007 appealing from the Office action mailed 17 May 2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

2003/0088609	Guedalia et al.	05-2003
2001/0029548	Srikantan et al.	10-2001

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, and 4-11 are rejected under 35 U.S.C. 102(e) as being anticipated

by Guedalia et al. (2003/0088609).

As per claim 1, Guedalia et al. teaches a multi-threaded server accept method (¶

107), comprising: creating a socket accept thread by a control thread of a server

process (¶ 120); receiving a service request from a client by the socket accept thread (¶ 259); transferring the request to a data structure (¶ 263); and retrieving the request, by the control thread, from the data structure (¶ 265); and transferring the request to a client thread dynamically created by the control thread, to process request data associated with the request (¶ 108-112 and ¶ 245).

As per claim 2, Guedalia et al. teaches the data structure comprises a queue (¶ 109).

As per claim 4, Guedalia et al. teaches waiting for service requests by performing an accept () call (¶ 257).

As per claim 5, Guedalia et al. teaches receiving the request comprises receiving a client socket object (¶ 258).

As per claim 6, Guedalia et al. teaches waiting for the service request from the client by the socket accept thread (¶ 256-258).

As per claim 8, Guedalia et al. teaches receiving a second request by the socket accept thread from the client; transferring the second request to the data structure; retrieving the second request by the control thread; transferring the second request to a second client thread to process second request data; and processing the second request data by the second client thread (¶ 266-269).

As per claim 9, Guedalia et al. teaches creating the second client thread to process the second request data (¶ 265).

As per claim 10, Guedalia et al. teach socket accept thread and the control thread are executed on a single processor (¶ 185).

As per claim 11, Guedalia et al. teach the steps of transferring the request to the

data structure and retrieving the request from the data structure are serially performed

(¶ 13).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Guedalia

et al. as applied to claim 1 above, and further in view of Srikantan et al. (2001/0029548).

Guedalia et al. teaches the mentioned limitations of claim 1 above but fails to teach a

method, wherein the data structure comprises a FIFO queue. However, Srikantan et al.

teaches a method, wherein the data structure comprises a FIFO queue (see Srikantan

et al., ¶ 85). It would have been obvious to one having ordinary skill in the art at the time

of the invention to modify Guedalia et al. to a method, wherein the data structure

comprises a FIFO queue in order to keep a server processor from reaching an upper

bound or limit on the number of sockets or clients that the server can service (see

Srikantan et al., ¶ 4)

Claims 12-16, 18-26, and 28-30 have similar limitations as to claims 1-6 and 8-11

above; therefore, they are being rejected under the same rationale.

(10) Response to Argument

Applicant's arguments related to limitations of claims 1, 2, 4-6, and 8-11:

(I) Applicant stated that Guedalia does not disclose or even suggest all the

limitations of Claim 1. For example, Guedalia appears to disclose a multi-thread

management system for processing requests by a server from a client. (Guedalia,

Abstract and paragraph 0240). Guedalia appears to create a finite number of threads

within a thread pool to process the requests. (Guedalia, 0244).

In response to applicant's argument that the references fail to show certain

features of applicant's invention, it is noted that the features upon which applicant relies

are not recited in the rejected claim(s). Although the claims are interpreted in light of

the specification, limitations from the specification are not read into the claims. See *In*

re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The claim does not

mention anything about the number of threads created. In other words, the number of

threads (finite or infinite) has nothing to do with the claim language. The claim merely

states that a client thread is dynamically created by the control thread, to process

request data associated with a request.

(II) Applicant argued that in Guedalia, at every 50 msec interval, the "watchdog"

appears to check to see if a particular thread is active, and, if so, increments the tick

counter for that particular thread. (Guedalia, 0244). If the tick counter for a particular

thread in Guedalia exceeds a particular threshold (e.g., 3), then the "watchdog" appears to lower the priority of the thread, remove the thread from the thread pool, and create a new thread to replace that thread in the thread pool. (Guedalia, paragraph 0245). Thus, Appellants respectfully submit that Guedalia appears to disclose processing request data from <u>already existing</u> threads in a thread pool and does not appear to have threads "<u>dynamically created</u> by the control thread <u>to process request data</u> associated with the request" as recited in Claim 1 (emphasis added).

The Examiner points out that Applicant admits that Guedalia teaches creating a new thread. Removing or replacing another thread does not involve the claim language in any way. Since the claim has no recitation of removing or keeping other threads, the argument holds no ground. Furthermore, the Applicant seems to be making contradictory statements. First, Applicant states that the "watchdog" appears to create a new thread to replace another thread in the thread pool. Then later goes on to say that Guedalia appears to disclose processing request data from already existing threads in a thread pool. Examiner fails to see how a new thread can be created from threads that already exist. The meaning of creating a new thread is that the thread never existed before. In ¶ 108, Guedalia states, "The present invention describes a **dynamic functionality** for thread management, in which **additional threads are created** and destroyed during processing, depending on how busy the server gets." Emphasis added. Therefore, since additional threads are created, Guedalia teaches, threads "<u>dynamically created</u> by the control thread <u>to process request data</u> associated with the request."

(III) Applicant further cited paragraphs 245 and 252-254 of Guedalia and remarked that the cited text of Guedalia appears to indicate that Guedalia "waits" before any new threads are created in order to prevent the "proliferation of threads" which could result in additional page faults and affect the performance of the system. (Id.). Guedalia further appears to disclose that threads are created when a thread is removed from the thread pool, and when created, is placed into the thread pool. Therefore, Appellants respectfully submit that Guedalia would not and does not appear to disclose or even suggest "transferring the request to a client thread dynamically created by the control thread to process request data associated with the request" as recited in Claim 1 (emphasis added).

Examiner indicates that waiting before any new threads are created has no effect on the claim language. For instance the claim is not interpreted to mean that a new thread is immediately created upon receipt of a request. The claim is reasonably interpreted to mean that threads are created as requests are received. Guedalia discloses that new threads are created when request queues up as described in ¶ 112. And in ¶ 245, Guedalia states, "The new thread, immediately upon its creation, is free to process a request in the queue if a queued request exists." Therefore Guedalia teaches, "transferring the request to a client thread dynamically created by the control thread to process request data associated with the request" as recited in Claim 1.

(IV) Applicant also stated that for at least these reasons Claim 1 is patentable over Guedalia. Claims 2-6, 8-11, 13-16, 18-21, 23-26 and 28-30 that depend respectively from independent Claim 1 are, therefore, also patentable.

The Examiner points out that since claim 1 is unpatentable over Guedalia for the reasons shown above, claims 2-6, 8-11, 13-16, 18-21, 23-26 and 28-30 that depend respectively from independent claim 1 are, therefore, also not patentable.

Applicant's arguments related to limitations of claims 12-13, 15-16, and 18-21:

(V) Applicant applied the arguments set forth above regarding claim 1 to independent claim 12.

The Examiner incorporates herein the above-mentioned responses regarding claim 1 which apply fully to independent claim 12.

(VI) Applicant moreover stated that independent Claim 12 is patentable over the cited reference and, thus, remaining Claims 13, 15-16, and 18-21, which depend from independent Claim 12, is also patentable.

The Examiner points out that since claim 12 is unpatentable over Guedalia for the reasons mentioned above, claims 13, 15-16, and 18-21 that depend respectively from independent claim 12 are, therefore, also not patentable.

Applicant's arguments related to limitations of claims 22-23, 25-26, and 28-30:

(VII) Applicant applied the arguments set forth above regarding claim 1 to independent claim 22.

The Examiner incorporates herein the above-mentioned responses regarding claim 1 which apply fully to independent claim 22.

(VIII) Applicant moreover stated that independent Claim 22 is patentable over the cited reference and, thus, remaining Claims 23, 25-26, and 28-30, which depend from independent Claim 22, is also patentable.

The Examiner points out that since claim 22 is unpatentable over Guedalia for the reasons mentioned above, claims 23, 25-26, and 28-30 that depend respectively from independent claim 22 are, therefore, also not patentable.

Applicant's arguments related to limitations of claims 3, 14, and 24:

(IX) Applicant stated that Appellant repeats and incorporates herein the arguments presented above in connection with independent Claims 1, 14, and 24 such that Guedalia does not disclose or even suggest all the limitations of Claims 1, 14, and 24 and, therefore, Guedalia does not disclose or even suggest all the limitations of Claim 3, 14, and 24 which depend from respective Claims 1, 14, and 24.

The Examiner points out that since independent claims 1, 12, and 22 are unpatentable over Guedalia for the reasons mentioned above, claims 3, 14, and 24 that depend respectively from independent claims 1, 12, and 22, are therefore also not patentable.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.
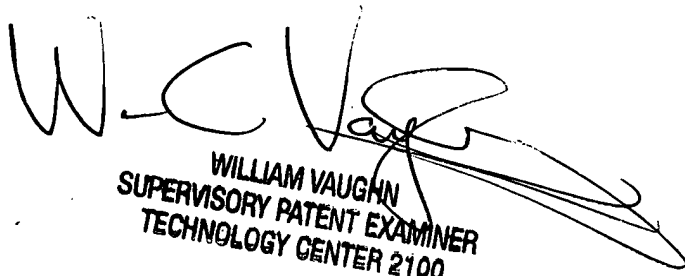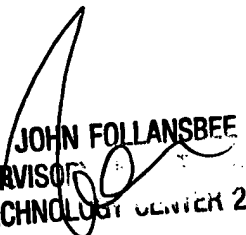

Respectfully submitted,

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Examiner

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